

# **Release Notes**

## **Pascal-2 V2.1D for RT-11**

**January 15, 1985**

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House Report  
No. 1000

1900

It is the duty of the House of Representatives to inquire into the conduct of the Executive branch of the Government, and to report the results of its inquiry to the people. In the discharge of this duty, the House has the honor to present to the people this report on the conduct of the Executive branch of the Government during the year 1900.

The House has the honor to present to the people this report on the conduct of the Executive branch of the Government during the year 1900. The report is divided into two parts: the first part contains a general statement of the conduct of the Executive branch of the Government during the year 1900, and the second part contains a detailed statement of the conduct of the Executive branch of the Government during the year 1900.

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# Pascal-2 V2.1D/RT-11 Release Notes

The information contained in this document describes the Pascal-2 V2.1D release package. In these notes you will find:

- A list of problems ("bugs") we've fixed in this release.
- Notes on changes in the documentation and on how to update the user manual.
- Miscellaneous notes of interest to Pascal-2 users.
- The Installation Guide.

These release notes should be read before attempting to install the compiler and utilities on your system. The "Documentation Notes" section of the release notes should be read before attempting to insert the change pages from the update package into the user manual.

## Style Notes

This document follows these style conventions:

### Text:

Pascal reserved words, predefined symbols, switches and compiler directives are in boldface typewriter: **begin**, **write**, **%include**, **asmain**. Portions of examples referred to in the text appear in boldface typewriter (the type style used in examples). Program, system and file names are in upper-case letters in the same type style as the text: **SAMPL**, **VMS**, **SAMPL.PAS**.

### Program Examples:

Commands that you should enter are in underlined boldface typewriter: **RUN EX**. These commands assume a carriage return at the end.

### Program Listings:

The Pascal-2 compiler accepts any combination of upper-case and lower-case characters. Examples in this manual have Pascal words in lower case and have user-defined words with an initial capital letter and other capitalization as needed for readability, as shown in this program fragment:

```
procedure Show;  
begin  
  SomeUserAction;  
  writeln(Result);  
end;
```

### Terminology:

We use standard terms as they are used in documents describing the RT-11 operating system.

# THE HISTORY OF THE UNITED STATES

OF THE UNITED STATES OF AMERICA

FROM THE FIRST SETTLEMENTS TO THE PRESENT TIME

BY

JOHN F. JOHNSON

NEW YORK

JOHNSON & JOHNSON

1877

THE HISTORY OF THE UNITED STATES

OF THE UNITED STATES OF AMERICA

FROM THE FIRST SETTLEMENTS TO THE PRESENT TIME



## **Pascal-2 V2.1D/RT-11 Release Notes**

### **Changes in the Software**

Version 2.1D is primarily a maintenance up-date; changes in software between Versions 2.1D and 2.1C consist for the most part of fixes for previously known problems.

### **Problems We've Fixed**

Version 2.1D corrects the following problems:

#### **Record field as a parameter**

The compiler generated bad code when certain nested record fields were passed as a parameter.

#### **Negative stack offset for common subexpressions**

Depending upon the location of a variable's declaration, two identical calculations involving certain functions, including `sin` and `cos`, could have different results. The library routines for the functions caused the compiler to reference a negative offset from the stack pointer.

#### **Wrong results from integer comparison**

A comparison between an integer and a subrange that is an element of a packed record produced an incorrect result.

#### **Incorrectly addressed real variable**

Certain globally allocated real variables were incorrectly addressed. As a work-around, reducing the size of the program seems to remove the error.

#### **Dynamic string package errors**

The `Insert` routine printed the error message `Array subscript out of bounds` when the combined length of the two input strings exceeded the target string's length. Now, the insert string is concatenated onto the end of the target string and truncated.

The `Concatenate` routine reported errors when the string to be concatenated overflowed the target string. The input string is now truncated to fit.

#### **%Page directive didn't work**

On listings, `%page` incremented the page number incorrectly.

#### **Reserved instruction trap error**

Using a packed record containing integers in a nested procedure call caused a reserved instruction trap.

#### **Illegal instruction gave "compiler writer error"**

Using certain illegal instructions resulted in the error message for internal problems instead of the appropriate error message.

#### **No error message**

The compiler failed to give an error message for attempts to pass an element of a packed structure as a variable-parameter.

January 1st 1880

Dear Sir

I have the honor to acknowledge the receipt of your letter of the 28th inst.

and in reply to inform you that

the same has been forwarded to the proper authorities

for their consideration

I am, Sir, very respectfully, your obedient servant

Yours faithfully

J. H. [Signature]

Enclosed find [unclear]

I am, Sir, very respectfully, your obedient servant

Yours faithfully

J. H. [Signature]

Enclosed find [unclear]

I am, Sir, very respectfully, your obedient servant

Yours faithfully

J. H. [Signature]

I am, Sir, very respectfully, your obedient servant

Yours faithfully

J. H. [Signature]

Enclosed find [unclear]

I am, Sir, very respectfully, your obedient servant

Yours faithfully

J. H. [Signature]



### **The compiler incorrectly used R0 for procedure calls**

The compiler failed to save the contents of the R0 register after nonpascal procedure calls.

### **Memory protection violation**

A memory protection violation occurred in isolated instances when the value of R0 was not initialized before adding the offset.

### **Sets generated bad code**

Set constructor expressions of the form [var1..var2] generated bad code at times.

### **Set type produces wrong results**

The declaration and statement

```
type a = set of (one,two,three);
var b:a;

begin
  b:= [one,three];
  write(b * [] <= []);
end.
```

produced a set of 256 items merged with a set of 3 results.

### **Function returns incorrect result**

The compiler incorrectly changed bit lengths to byte lengths when a function returned a structured type.

### **Bit optimisations incorrect**

Compiler optimization of certain user-defined procedure calls produced an incorrect sequence of execution.

### **PB formatter rejects "nonpascal"**

The formatter failed to recognize the nonpascal directive. It now treats nonpascal exactly like the external directive.

### **String comparison range wrong**

For string comparisons, ord(char) was in the range 0..255 instead of -128..127. The range is now correct.

### **Unsigned characters treated as signed**

The compiler treated 8-bit characters as if they were signed numbers when the character was optimized.

### **Assignment statements caused failure**

A complicated series of assignment statements involving arrays of type real previously failed.

### **Compiler consistency checks reported**

Certain instances of undeleted temps in procedure... were fixed in 2.1D.

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper record-keeping is essential for the integrity of the financial system and for the ability to detect and prevent fraud. The document also outlines the specific requirements for record-keeping, including the need to maintain separate accounts for each transaction and to ensure that all records are properly indexed and filed.

The second part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper record-keeping is essential for the integrity of the financial system and for the ability to detect and prevent fraud. The document also outlines the specific requirements for record-keeping, including the need to maintain separate accounts for each transaction and to ensure that all records are properly indexed and filed.

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## **Pascal-2 V2.1D/RT-11 Release Notes**

### **Linkage failure during installation**

A missing continuation character in the file UTILS.XM, which builds the utilities, caused a failure at the point where XREF is linked.

### **Misleading error message for nonexistent files**

The compiler printed the error message "Unknown Pascal run-time error" for an attempt to compile a nonexistent file or a file containing a %include of a nonexistent file.

### **Debugger overlays do not work for XM monitor systems**

XMDBG.COM, the XM monitor command file that links Debugger modules with a Pascal program, now correctly overlays Debugger modules.

Handwritten text, likely bleed-through from the reverse side of the page. The text is illegible due to fading and blurring.



### Documentation Notes

The documentation for Pascal-2 Version 2.1D includes the second edition of the *Pascal-2 User Manual*, which documents the enhanced V2.1 software, and Update Package No. 2, documenting the 2.1D features. (Update Package No. 1 was previously distributed and all changes then noted have been incorporated into the manual.) We have expanded a number of sections, including "External Modules," "Resident and Cluster Libraries," and "The Debugger Guide." The expanded sections provide new information and clarify and correct earlier material, at user suggestion. Update Package No. 2, records these changes and is made up of "change pages" for insertion into the user manual at the appropriate place. The update package's cover sheet should be inserted into the manual just before the first contents page, to keep a history of changes to the manual.

The *Release Notes*, containing the Installation Guide, is a companion document of the *Pascal-2 User Manual* and should be kept with that manual for reference.

### Miscellaneous Notes

#### Official ISO Standard for Pascal

The Pascal language now officially has an international standard. The International Standards Organization, in a vote tallied this summer, adopted a standard language definition for Pascal. The action followed earlier adoption of an American standard that is a subset of the international one, lacking only conformant array parameters.

The sequence leading to adoption of the Pascal standard began in December 1982, when ANSI and IEEE agreed on the American standard, identical to the international draft standard except for conformant array parameters. At the same time, the Joint Pascal Committee of ANSI and IEEE recommended adoption of the international standard Level 1 (including conformant array parameters) to the U.S. committee known as X3J9, which then voted "yes" on the international standard at the next meeting. Previously, the U.S. was one of three "no" votes. This time, the ISO standard passed with no dissenting votes and one abstention.

Peppered throughout the Language Specification of the user manual are references to the "draft" standard. The word "draft" can be ignored. (Change pages were not issued for this change.)

#### Packing Problems

Several users have uncovered bugs in Pascal-2's packing of records and arrays. We believe that it may be necessary to modify the packing algorithm slightly in version 2.1E in order to correct these problems. If such a change is necessary, users who have programs that involve the reading and writing of packed records or arrays may have to convert their data files to the new format in order to use V2.1E. This new version will be released in roughly six months; if the packing conversion is necessary we will make every effort to clearly document when and how to follow the conversion process.

#### Stack Overflows

Especially large stack overflows, those that extend beyond the heap and into the program code sections of memory, have the potential for causing serious problems. In some cases it is possible for the error to prevent the appropriate error message from being printed or the program from properly terminating. In some rare instances, the condition can even lead to the disruption of the computer's operating system. It is the programmer's responsibility to avoid such excessively large overflows by controlling the size of local variables and value parameters passed to procedures.



The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry must be supported by a valid receipt or invoice. The second part outlines the procedures for handling discrepancies between the books and the actual cash on hand. It states that any variance must be investigated immediately and reported to the appropriate authority. The third part provides a detailed explanation of the accounting cycle, from identifying the business transactions to preparing the financial statements. It includes a list of the accounts used in the system and a description of how they are maintained. The final part of the document contains a summary of the key points discussed and a statement of the author's responsibility for the accuracy of the information provided.

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## **Pascal-3 V2.1D/RT-11 Release Notes**

### **EXITST Creates a Walkback for 'Severe Error' Status (4)**

The `Exitst` procedure is a support library routine that sets the termination status of a program and stops the program when a "severe error" status is detected. The procedure's integer argument determines the termination status for any program that calls it. When a "severe error" status of 4 is passed, the procedure also invokes the post mortem analyzer to create a walkback of the program execution from the point of failure.

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# Pascal-2 V2.1D/RT-11 Installation Guide

This guide describes the way to load the RT-11 Pascal-2 software on your system. The V2.1 software runs on RT-11 V4 and V5.

To install Pascal-2 V2.1 for RT-11, follow the steps below:

1. Copy all of the Pascal-2 files to the system device (SY:);
2. Select a compiler depending on your system monitor;
3. Select a run-time library depending on your processor hardware options;
4. Compile the Pascal-2 utility programs;
5. Set the compiler's listing file page size to a value other than 66 octal (optional);
6. Extract the Debugger modules from the support library for use in overlaying the Debugger against user programs.
7. Delete files no longer needed (optional). See Appendix B for a sample deletion command.

These steps are described in detail in the following paragraphs, and are illustrated by an example that can be found in Appendix B of this guide. The installer should read this guide in its entirety before attempting to install the software. Upon successful completion of the installation, the Pascal-2 system is fully operational as described in the *Pascal-2 User Manual*.

This guide contains two appendices. Appendix A lists the files contained in the release media. Appendix B shows a typical XM installation.

## Copying the Pascal-2 Files to the System Device

Copy all of the distribution files to the system device (SY:) using the **ASSIGN** and **COPY** commands, as shown below:

```
.ASSIGN SY DK _____ assigns SY: as default device  
.COPY MTO: SY: _____ copies magtape to system device
```

If your system disk is a floppy disk, or is otherwise limited in available space, you should first read the following sections and select the files that are necessary for your system. Then copy those files to your system. The minimal system requires one compiler file and one library file. You may wish to build more than one system disk and, for example, install the compiler, library, and Debugger on one disk and the utility programs on a second system disk.

## Selecting a Compiler for Your System Monitor

There are two compilers supplied with Pascal-2. Your choice of a compiler depends on the version of the RT-11 monitor you intend to use. There are four possibilities: the Base-Line (BL) monitor, the Single-Job (SJ) monitor, the Foreground-Background (FB) monitor, and the eXtended-Memory (XM) monitor.

If you are using either the BL or the SJ monitor, choose the compiler called SJ.SAV. If you use the XM monitor, select the compiler called XM.SAV.

The FB monitor does not leave sufficient memory to run the Pascal-2 compiler. If you are using the FB monitor, you must switch to either the SJ or XM monitor (using the **BOOT** command) before compiling a Pascal program. Once compiled, programs may be linked and run under the FB monitor.







## Pascal-2 V3.1D/RT-11 Installation Guide

The XM compiler should be chosen over the SJ compiler where possible because it uses the extended memory or "virtual" overlay capability and gives faster compilations.

When you have selected a compiler file, copy it to **SY:PASCAL.SAV** with the following command, which assumes the default device is **SY:**.

.COPY SJ.SAV PASCAL.SAV \_\_\_\_\_ installs SJ compiler  
or:  
.COPY XM.SAV PASCAL.SAV \_\_\_\_\_ installs XM compiler

You may then delete **SJ.SAV** and **XM.SAV**, or you may leave them on your system disk for use under their respective monitors. (See Appendix B.)

## Selecting a Run-Time Library

There are four run-time libraries supplied with Pascal-2, one for each combination of processor instruction sets. Choose the library that matches the configuration of the processor that will run your compiled programs.

The possible configurations are:

- FPP — a processor with the Floating Point Processor instruction set. The FPP is standard equipment on the PDP-11/60 and optional on all new PDP-11's and the LSI-11/23. If your processor includes the FPP, select the **LIBFPP.OBJ** library.
- FIS — the Floating Instruction Set. The FIS hardware is an option available for the LSI-11, LSI-11/2 and some older PDP-11 processors. If your processor has FIS, select the **LIBFIS.OBJ** library.
- EIS — Extended Instruction Set, for hardware support of multiply, divide, and long shift instructions. EIS is standard equipment on all new PDP-11 and LSI-11/23 processors and an option available for all older LSI-11's and PDP-11's. If your processor has neither FPP nor FIS, but does have EIS, then select the **LIBEIS.OBJ** library.
- For processors with no extended or floating instructions, select the **LIBSIM.OBJ** library. This library operates on any LSI-11 or PDP-11 regardless of its actual configuration, but does not take advantage of any optional hardware.

After selecting a library file, copy it to **SY:PASCAL.OBJ** with the following command or one similar to it, depending on the processor configuration. In the command, **SY:** is the default device.

.COPY LIBFPP.OBJ PASCAL.OBJ \_\_\_\_\_ FPP library

You may then remove the other library files, or leave them on the system for use with other configurations. (See Appendix B.)

## Compiling the Utility Programs

Five Pascal-2 utility programs are supplied in source form and are automatically compiled and linked by one of two command files, **UTLS.SJ** and **UTLS.XM**. **UTLS.SJ** prepares the utility programs for execution under the SJ, FB and BL monitors; **UTLS.XM** prepares them for execution under XM. Feel free to examine these command files before executing it indirectly using one of two commands:

.OUTLS.SJ  
or:  
.OUTLS.XM



...the ... of ...  
...the ... of ...  
...the ... of ...  
...the ... of ...  
...the ... of ...

...the ... of ...  
...the ... of ...  
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...the ... of ...  
...the ... of ...



## Compiling the Utility Programs

Upon completion of UTILS, the utility programs are available for use as described in the Utilities Guide of the *Pascal-2 User Manual*.

In UTILS.XM all of the utilities must be linked as "virtual jobs" made up of virtual overlays because their load images are larger than 16K. (The XM monitor can not load a program with a root segment larger than 16K.) The Pascal-2 file START.OBJ is used in the link process to create a null root segment, tricking the Linker into loading the oversized program. The *Pascal-2 User Manual* contains a detailed description of this technique for user programs in Pascal.

When UTILS completes, you may then delete the extra .OBJ and .MAP files left on the disk by the UTILS command file. (See Appendix B.)

### Setting the Page Size of the Compiler's Listing File

The command files RTPAGE.COM and XMPAGE.COM, supplied with the Pascal-2 release, provide a means for changing the number of lines per page of the SJ and XM compilers' listing file, respectively. This feature allows for the use of odd-sized printer paper or for special printing needs.

Before executing either command file, you must modify the lines-per-page value in the fifth line of data in the command file. (The first line of data is the file to patch.) The normal page size (in octal) is 66, not counting header lines.

```
! Command file to patch the SJ version of Pascal to change
! the lines per page of a listing file
!
! Change the number nn (octal) to another value, in octal
! that represents the number of lines per page of a listing file
! that you require.
!
R SIPP
SY:PASCAL

3075
2
nn _____ lines per page
~Y
~C
```

where *nn* is the desired page size in octal. The value '3075' is the base address of the symbol `PAGELN`, and the actual value in the supplied command file may be different. The value '2' is the byte offset from the base address of the location to patch. Values for the page size and byte offset must not be changed.

After editing the appropriate file, execute it indirectly with the command:

```
RTPAGE _____ for SJ installation
or:
XMPAGE _____ for XM installation
```

12-10-1944

The first of the new year is a day of great  
significance for the people of the world. It is a day  
when the old year is closed and the new year is  
opened. It is a day when the people of the world  
are reminded of the fact that they are all  
part of a great whole and that they must  
work together for the good of all.

The new year is a time of hope and  
optimism. It is a time when the people of the  
world are reminded of the fact that they are  
all part of a great whole and that they must  
work together for the good of all. It is a time  
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## **Pascal-3 V3.1D/RT-11 Installation Guide**

### **Extracting Support Library Modules for Debugger Overlays**

Before users can overlay the Debugger against their programs, the command file EXTRAC.COM must be executed. This command file, supplied with the release kit, extracts from the Pascal support library the Debugger and other key modules used by the XMDBG.COM (for XM systems) and SJDBG.COM (for SJ systems) command files, also in the release kit. (Users can then execute either XMDBG.COM or SJDBG.COM to overlay the Debugger and their Pascal programs.) EXTRAC.COM places the modules onto the system device (SY:), with the extension .DBG. It need only be executed once.

The command file can be executed with the indirect (at-sign) processor, as shown:

**.@EXTRAC**

### **Installing Pascal-2 With Pascal-1**

The Pascal-1 system compiler can be renamed to allow simultaneous use of Pascal-1 and Pascal-2. Then, the files for both systems can be present on the system device without conflict, provided that the compiler/library versions and upgrade levels are themselves compatible. (For example, Pascal-1 V1.2K is compatible with Pascal-2 V2.0K, and V1.3C is compatible with V2.1C; V1.2K, however, is not compatible with V1.3C.

The object library PASCAL.OBJ can be shared by the two systems (as long as the two system versions are compatible); the libraries supplied with Pascal-2 include all of the Pascal-1 routines.





## Appendix A: Distribution Files

### Compilers

SJ .SAV Pascal-2 Compiler for SJ monitor  
 XM .SAV Pascal-2 Compiler for XM monitor

### Object Libraries

LIBFPP.OBJ Library for processors with FPP and EIS  
 LIBFIS.OBJ Library for processors with FIS and EIS  
 LIBEIS.OBJ Library for processors with EIS only  
 LIBSIM.OBJ Library for base-level processors  
 VIRJOB.OBJ Header module for XM virtual jobs  
 START.OBJ Null root module for XM virtual overlays

### Command Files

EXTRAC.COM Support library module extractor for Debugger overlays  
 SJDBG.COM Debugger overlayer for SJ monitor  
 XMDBG.COM Debugger overlayer for XM monitor  
 RTPAGE.COM SJ listing-file page size patcher  
 XMPAGE.COM XM listing-file page size patcher  
 UTILS.SJ SJ, FB and BL utility installer  
 UTILS.XM XM utility installer

### Utility Programs

PASMAT.PAS Program formatter  
 PB.PAS Pascal Beautifier  
 XREF.PAS Cross-referencer  
 PROCREF.PAS Procedure cross-referencer  
 PROSE.PAS Text formatter  
 STRING.PAS String package  
 PASMAL.MAC MACRO-11 interface package  
 SAYERR.PAS System error message printer  
 UERRR.PAS User error reporting module  
 OPERRO.PAS Support library error routine  
 LIEDEF.PAS Support library definitions  
 CSITYP.PAS Command String Interpreter (CSI) type definitions  
 CSIPRO.PAS CSI procedure definitions  
 FIXARG.PAS CSI argument parser  
 FIXINC.PAS CSI %include file handler  
 FIXOUT.PAS CSI temporary output manager  
 SYMCL.PAS CSI symbol table declarations  
 SYMCD.PAS CSI symbol table manager  
 CENVUM.PAS CSI command-line number converter

### Demonstration Programs

\* Vary from release to release





## Pascal-2 V3.1D/RT-11 Installation Guide

### Appendix B: Typical XM Installation

The following steps illustrate the installation of Pascal-2 from magtape on a processor that includes the FPP floating point processor. The Pascal-2 compiler for the extended memory (XM) monitor is selected.

```
.ASSIGN SY DK _____ assigns SY: as the default device
.COPY MTO: SY:
.COPY LIBFPP.OBJ PASCAL.OBJ _____ selects the FPP library
.COPY XM.SAV PASCAL.SAV _____ selects the XM compiler
.UTILS.XM _____ builds the utilities
R PASCAL _____ builds PASMAT
PASMAT/TIME/WORKSPACE=650
! The following link will round up the root to 4K and put the extra
! memory on the heap
R LINK
PASMAT,PASMAT=START,VIRJOB/U:20000//
PASMAT,PASCAL/V:1
//
P$GROW
~C
R PASCAL _____ builds PB
PB/TIME
R LINK
PB,PB=STRAT,VIRJOB/U:20000//
PB,PASCAL
//P$GROW
~C
R PASCAL _____ builds XREF
XREF/TIME
R LINK
XREF=START,VIRJOB/U:20000//
XREF,PASCAL/V:1
//
P$GROW
~C
R PASCAL _____ builds PROCREF
PROCREF/TIME
R LINK
PROCREF,PROCREF=START,VIRJOB/U:20000//
PROCREF,PASCAL/V:1
//
P$GROW
~C
R PASCAL _____ builds PROSE
PROSE/TIME/WORKSPACE=700
R LINK
PROSE,PROSE=START,VIRJOB/U:20000//
PROSE,PASCAL/V:1
//
P$GROW
~C
```





## Appendix B: Typical XM Installation

- .XMPAGE** \_\_\_\_\_ sets listing page size to value other than 66 octal (optional)
- .XEXTRAC** \_\_\_\_\_ extracts library modules for Debugger overlaying
- .R PIP** \_\_\_\_\_ cleans up the system disk (optional)
- **SJ.SAV.XM.SAV/D** \_\_\_\_\_ Remove the compilers, leaving PASCAL.SAV
- **LIBFPP.OBJ.LIBFIS.OBJ.LIBEIS.OBJ.LIBSIM.OBJ/D**
- **PASMAT.OBJ.PB.OBJ.XREF.OBJ.PROCRE.OBJ.PROSE.OBJ/D**
- **PASMAT.MAP.PB.MAP.XREF.MAP.PROCRE.MAP.PROSE.MAP/D**
- **C**

August 1922

The following is a list of the names of the persons who have been elected to the office of the President of the United States since the year 1789. The names are given in alphabetical order of the year in which they were elected.

Year	President
1789	George Washington
1793	Thomas Jefferson
1797	John Adams
1801	James Madison
1809	James Monroe
1817	James Monroe
1821	James Monroe
1825	James Monroe
1829	Andrew Jackson
1837	Andrew Jackson
1841	Andrew Jackson
1845	James K. Polk
1849	Franklin Pierce
1853	Franklin Pierce
1857	Franklin Pierce
1861	Abraham Lincoln
1865	Abraham Lincoln
1869	Abraham Lincoln
1873	Abraham Lincoln
1877	Abraham Lincoln
1881	Abraham Lincoln
1885	Abraham Lincoln
1889	Abraham Lincoln
1893	Abraham Lincoln
1897	Abraham Lincoln
1901	Abraham Lincoln
1905	Abraham Lincoln
1909	Abraham Lincoln
1913	Abraham Lincoln
1917	Abraham Lincoln
1921	Abraham Lincoln